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Comments Concerning Differences Between AmConGen Hong Kong Estimates
and Chinese Communist Announcements of Industrial Production

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Comments Concerning Differences Between AmConGen Hong Kong Estimates
and Chinese Communist Announcements of Industrial Production

I. General Comments on the Differences in Estimates.

The differences between the Hong Kong Consulate General's estimate of important industrial products and Chou En-lai's announced figures have certain general implications. In the first place the Hong Kong figures would indicate that industrial production in Communist China did not reach pre-Communist peak levels until 1954--two years later than claimed by the Communist government.

	Unit	US Estimates of Chinese Pre-Communist Peak Produc- tion in any one year	CC Estimates of Pre-Com- munist Peak Production*	Peasley estimate for 1954
Pig Iron	Million MT	1.89 (1943)	2.24	1.96
Finished Steel	Million MT	.89 (1943)	1.00	1.1
Cement	Million MT	1.9 (1942)	2.13	less than 3.6
Coal	Million MT	65.1 (1942)	70.79	56
Electric Power	Billion KWH	7.0 (1944)	5.95	about 5.9
Cotton Yarn	Million Bales (400 lbs)	2.4 (1931)	2.4	3.2

* Based on Li Fu-chun's indices of 1949 production as percentages of past peak in his report of 31 Oct. 1951 and on Chou En-lai's "Report on the Work of the Government" 23 Sept. 1954. Presumably the Communist estimates of previous peak production are composites of different years' peak production in Manchuria under the Japanese and in China Proper under the Nationalists.

In the case of coal and electric power, therefore, the Peasley estimate has Communist output in 1954 well below pre-Communist levels, yarn 33 percent higher than 1931, cement double pre-Communist peak output, and iron and steel at about the 1943 level.

Such a delay in restoration to pre-Communist levels would be surprising in view of the consolidation of the country under one government and one

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transportation system and in view of the impact of the Chinese Communist industrialization program and the stabilization of the price level since 1950. In the period from 1950 to 1952 when in general output was still below capacity output, the presence of demand for industrial output was created by the Chinese Communist military and industrialization plans and an expanded bureaucracy to be supported through the budget. It is noted that increases in industrial production in China are quite comparable to what has taken place in Japan where 1952 output also had reached pre-war levels. The rate of increase in industrial output in Japan by this period is not substantially lower than that in China based on CC estimates.

The second general comment on the discrepancies emerging from the published Communist statements and estimates of the Consulate General is not germane to the question of which is correct as much as it would lead to serious questions as to the possibility of securing any knowledge of the Chinese Communist economy on the aggregate level. If Chinese Communist figures are to be rejected as outright and deliberate distortions of fact in favor of estimates accepted in the intelligence community, a considerable body of new data now becoming available from Chinese Communist statistics must be treated not as new information but as confusing net liabilities in our efforts to determine what are the facts on the Chinese economy.

We are not, however, faced with such an alternative. The incongruities and discrepancies that appear in most Chinese Communist estimates involve the usual procedures of economic intelligence in sifting and interpreting statements which must always be used with caution. But the picture of the Chinese economy in 1952, 1953 and 1954 created by Chinese Communist statements is not nearly as confused or inconsistent as is believed by the Hong Kong Consulate General. The actual course of development in Chinese Communist statistical procedure seems to be one where their own estimates of output in the years from 1949 to 1951 were subject to the very difficulties and problems that were inherent in the organization and restoration of production. This is particularly true of estimates of agricultural and handicraft production and least likely to be present in counting output of homogeneous commodities such as the commodities under discussion. The Chinese Communist series undoubtedly overstates increases in agriculture, handicraft, and trade - segments of the economy that were not previously covered by direct statistical reporting - as production in these sectors expanded in the period under consideration and as state control was extended to additional areas of rural population, private entrepreneurs and traders.

In view of this trend and the inadequacies of pre-Communist statistics (particularly with respect to trade, handicraft, and industry other than mining and metallurgy), the interpretation of the present Chinese economy in terms of pre-war figures becomes progressively more difficult. The whole system of Communist controls places a burden on their compilation of statistics for meeting problems that ordinarily take care of themselves in a free economy. Not only is it clear that the Communists are in a better position to interpret periodic development in their economy than those without access to the basic data and the aggregates therefrom, but their statistical system is a practical

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necessity to their centralization of controls. In particular, there seems to be no justification for rejecting Communist figures for 1952 through 1954 in favor of Communist figures for 1949 through 1951 since aside from possibilities of distortion the statistics available to them are undoubtedly much more adequate in the latter period than in the earlier.

The two broad categories of rationalizations for rejecting Communist statistics from 1952 to 1954 are (1) the belief that inconsistencies exist in Communist statements and (2) the construction of estimates of production derived from totalling capacities for production known to be available to the Communists in each industry or sector. With respect to the first category of believed inconsistencies in Communist statements, the Consulate General's estimates seem to give undue weight to various difficulties in increasing production as published in the Communist press. Examples are reports of insect pests and natural calamities in agricultural production, suspension of output in the textile industry in late 1950, large stocks of coal not marketed at the end of 1951 and other indications of difficulties in production or in demand for commodities. These announcements are important, but must be placed in their proper context. Such difficulties are intrinsic to the Communist system of economic organization and in some degree are present in the development of any backward economy. In themselves they do not constitute grounds for rejecting Communist production estimates. Various Communist estimates of pre-Communist peak production or of 1949 output are subject to the same difficulties as those of non-Communist estimates of production in China for these years.

In any case it is important to build up as carefully as possible an integrated and consistent picture of the economy as viewed by the Chinese Communists themselves. The adjustments and corrections believed necessary should be clearly demarcated and should be made explicit. Otherwise economic intelligence on Communist China will be considering Communist estimates as inconsistent with other estimates not because the Communist figures are themselves inconsistent but because the announced Communist estimates differ from estimates that have been developed by rejecting or adjusting other Communist estimates of production. For example, the drastic downward adjustment of Communist statements of cotton production and a downward adjustment of Communist reported numbers of operable spindles are used as two of the reasons for rejecting Communist estimates of cotton textiles production. (See Hong Kong Despatch 1813, May 13, 1953, China Cotton Situation, U.)

The second category of rationalizations for not accepting Communist statements is the construction of estimates of production derived from totalling the known capacities of all plants or enterprises in an industry in order to compare the estimate of total capacity with Communist statements of production. Serious difficulties occur in this process. In the first place, such an inventory of capacity - for simple reasons of incompleteness of information, variations in types of equipment, discrepancies between rated and actual capacity, and variations in operating conditions - can be expected to differ by anywhere from 10 to 20 percent from actual capacity. Also the nature of capacity production is itself dependent on efficiency of operation, technological factors, and even to some extent on the demand for the commodity in question.

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Furthermore, such estimates can never include estimates of handicraft output that has been brought either under direct Communist control or under the state apparatus for control of trade and under the state tax system. A continuing inventory of productive capacity, then, can be used at best as a general indication of possible limits of output within a fair range of error.

II. Comments on Specific Commodities.

A. Iron and Steel.

The Consulate General's estimates are based on a lower 1949 base than CC estimates. The CC estimate for 1949 based on Chou En-lai's figures for pig iron is only 9 percent higher than that of the Consulate General, but when this base is multiplied by 12.4 this difference becomes substantial. The estimate of production based on capacity of major individual plants in 1954 as estimated in ORR, however, was only 10 percent less than Chou En-lai's figures as against the 35 percent discrepancy based on Peasley's estimate of capacity of pig iron.

In the case of steel, a difference in the 1949 estimate of 54,000 metric tons multiplied by 13.7 times yields a total 55 percent higher than the estimate of the Consulate General. The difference in estimate of capacity and production from this capacity between ORR and the Consulate General is even more substantial and can only be settled by discussion of the data on each plant.

Prior to Chou En-lai's announcement of the 1954 rate of steel production, ORR estimated probable production at major steel plants as follows:

<u>Plant</u>	<u>Facilities</u>	<u>Production</u> <u>Thousand MT</u>
Anshan	4 OH @ 150 tons 2 OH @ 210 tons 3 OH @ 235 tons	1,140
Mukden	OH Fccs. Electric Fccs	25 17
Penchihu	Electric	7
Taiyuan	2 OH	100
Tangshan	OH	200
Tientsin		24
Fushun		50
Shanghai	3 plants	100
Tayeh	2 Bess convertors	50

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<u>Plant</u>	<u>Facilities</u>	<u>Production</u> <u>Thousand MT</u>
Chungking	4 OF	75
Hangkow		25
Dairen		20
		Total: 1,533

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On the above basis, Chou's figure of 2.17 million tons of crude steel production in 1954 was considered reasonable, especially since the estimate of Anshan production was based on only two heats per day per furnace whereas it was reported by a [redacted] that the time required per heat of open-hearth steel was 9 hours.

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B. Cement.

The question of possible additions to capacity that have taken place seems to be the crucial matter in considering the estimate of production of cement. Pre-Communist capacity is estimated at 3 million tons and an estimated addition to capacity of 500,000 tons took place by 1953, possibly even by 1952. The main issue, therefore, revolves around the addition to capacity that is inherent in the announced Communist plan to increase 1954 production of cement by 23 percent over 1953. No statement on fulfillment or underfulfillment of the 1954 plan has been announced. Such an increase is certainly consistent with the Communist budgeted increase in 1954 investment in industry, transportation and communications of 30 percent over 1953.

C. Coal.

The reasons given in the Hong Kong Despatch No. 483 for not accepting production series that were somewhat smaller than the new Communist series of production estimates for coal were (1) the Consulate General's belief that the production indices of coal were overstated for propaganda purposes and (2) lack of demand for coal. The first reason cited is only a restatement of lack of credibility given to Communist statements. The Hong Kong despatch credits the Chinese economy with the capabilities to expand coal production to the level to be expected in terms of the demand for coal. Undue emphasis is given to Communist efforts to balance supply and demand of coal which would relate mainly to sales of coal to households, handicraft and miscellaneous industries.

The demand for coal, however, is in turn dependent on the degree to which Communist announcements are accepted for rail transportation and for industrial production generally. If these latter statements are taken at face value, demand for coal would seem to call for coal production in 1952 at the general level claimed by the Communists. ORR estimates of demand for coal per ton-km. of freight are in the range of 250-300 kgs per ton-km of freight, and the ratio for passenger-kms. of coal consumption would be 200-245 kgs

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per passenger-km. The range for freight is borne out by a statement of coal consumption in the Jenmin Jih Pao of 4 August 1954. (FDD Summary 263, Economic Weekly Report No. 20 8 Nov. 54, C.) When these inputs are matched against the announced figures of 59,641 million ton-kms and 22,000 million passenger kms. in 1952, coal consumption for rail transportation alone in 1952 would be between 19 million tons and 23 million tons--between 30 and 35 percent of the 1952 production based on Chou En-lai's announcement.

The Hong Kong Despatch No. 483 gives the 1934 consumption of coal as 34 percent for mining, metallurgy and industry, 16 percent for transportation, and 50 percent for handicraft and household consumption. If this proportion is assumed to hold in 1936, and neglecting exports, industrial consumption of coal would have been 13.4 million metric tons. The index of production in 1952 compared to 1936 is subject to grave difficulties, but modern industrial output in 1952 based on Communist claims in the light of the announcement by Chou En-lai is roughly 70-75 percent over 1936. This would indicate, very roughly, coal consumption by industry in 1952 of 23 million tons or about 35 percent of 1952 output of coal based on Chou En-lai's announcement.

This would leave coal consumption for households and handicrafts of 30 to 35 percent or from 19 to 23 million tons based on official Communist statements of coal production. This compares with a total of about 20 million tons in 1936 on the basis of the 50 percent allocated to households and handicrafts. These figures cannot replace a much more careful study of the demand for coal in China, but they do indicate that the Communist figures on coal production are not drastically out of line with other figures on the Chinese economy.

The 1954 level of 81.99 million tons is also not inconsistent with the ORR indexes of planned production in 1954 as based on Communist production estimates when applied against these 1952 figures for coal consumption. Transportation is projected at 47 percent higher than 1952; modern industry as 38 percent higher than 1952. Trade is projected as 12 percent higher than in 1952. These increases would call for an increase larger than the 27% increase projected over 1952.

D. Electric Power.

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So far as is known the electric power production estimate submitted by Mr. Peasley, 5.9 billion kwh in 1954, is based on applying the Communist-claimed approximate increase of 20% to the series of production estimates developed by [REDACTED] and published in an unclassified study, "The Electric Power Industry in China, To 1954," [REDACTED]

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[REDACTED] The production series there presented was: 1949 -- 2.5 billion kwh, 1950 -- 2.7, 1951 -- 3.4, 1952 -- 4.1, and 1953 -- 4.9.*

* In April 1954 the Electric Power Branch of ORR submitted to the State Department, at its request, an evaluation of that report. In essence that evaluation stated that the report evidenced a large volume of careful work, especially in its exploitation of the native Chinese Press, and that it was of considerable value for its detailed listing of construction and reconstruction work. However, it was further noted that the production figures presented were only about half as large as those being used at that time in ORR estimates.

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It appears that the production series used was based on Nationalist Chinese data for the period prior to withdrawal from the Mainland. These data were incomplete, claiming to cover only the facilities held by the Nationalists and not complete even for those. Further, because of the extreme disorganization of the economy at that time, the reported production from the fraction of facilities reporting could hardly be represented as normal.

One cross-check attempted in the study was based on percentage rate-of-utilization figures released by the Chinese Communists. Because of the practice during the period in question of using some undefined concept of capacity, and of referring these claims variously to only the State-Owned sector or to some larger sector without specification as to which was used, it is believed that attempts to base output estimates on these rate-of-utilization claims is subject to extreme error.

Although the Chinese Communists' claims are generally believed to represent the best information available to them, any attempt to compare these data with pre-Communist data must be approached with caution. In almost every category of domestic data the Communists are probably including the production of many small enterprises. Almost no pre-Communist statistics attempted to be as all-inclusive.

Since most of the detailed work produced by the Consulate General is based on unclassified sources, the work is not properly subject to criticism from the standpoint of classified sources.

The study in question and subsequent reports from the Consulate General have been of considerable value for their detailed listing of individual expansion projects. However, it must be remarked that the care in compiling these lists of projects is somewhat negated when their aggregate effect is dismissed as small and insignificant.

Certain studies done during World War II, augmented by more recent sources, permit the compilation of a more extensive list of facilities than that used by the Consulate General. Admittedly, many of the facilities are small by Western standards and contribute to an individual mill or factory rather than the public supply. However, inclusion of the estimated output of these facilities would reconcile at least a portion of the discrepancy between the estimates of the Consulate General and Chou En-lai's figures.

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Regarding projects, which the Consulate dismisses as "small scale items or rehabilitation schemes," [redacted] provide considerable detail and confirm the detailed claims of the Chinese Communists regarding individual projects. These sources [redacted] information regarding European Satellite and USSR participation in these projects lead to the impression that the native Chinese press and radio announce the start of a project only when it is sufficiently well advanced to assure completion fairly certainly before the announced and apparently short deadline.

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25X1A It is perhaps of interest to note that, on the occasion of a recent visit to ORR by [redacted] who prepared the electric power study [redacted] he was genuinely surprised at the volume of classified information bearing on the question, and showed no inclination to defend his previous conclusions. 25X1A

25X1C It is also of interest to note that the cognizant officers in State/OIR in Washington tend to concur with the estimates of ORR, as, with some exceptions, do [redacted]

E. Cotton Yarn.

The Consulate General's lower cotton yarn production estimate for 1954 is probably due to the same reasons adduced in Despatch No. 2293, May 13, 1953, viz., "study of past statistics, mill equipment, capacity and operation, and supply and demand of raw cotton." As to the production of raw cotton, a careful study of many if not all of the despatches relating to raw cotton production do not present a clear picture of the actual steps taken in rejecting and adjusting production estimates from Communist statements of regional and national production, which are considerably higher than the estimates of the Consulate General. Considerable stress is placed on natural calamities and other data based on Communist campaigns to increase cotton production. These campaigns were undoubtedly ineffective but the natural calamities also seem not to be of such a scale as to contradict completely the Communist claims of cotton production -- except for the flood in 1954 and the drought in the wheat areas in 1953. Communist statements, in fact, admit a sharp decline in cotton production in 1953 from 1952.

The crucial question in accepting the 1954 planned targets for yarn seem to depend on textile mill capacity under round-the clock operations.

	Output in lbs. of yarn	Spindles based on CC Claims (Millions)	Average Annual Output in lbs. Per spindle
1949	707,676,600	5.00	141.5
1950	947,978,000	5.00 (?)	189.6 (?)
1951	1,053,798,800	5.150	204.6
1952	1,415,353,200	5.325 a/	265.8
1953	1,599,437,300	5.638 a/	283.7
1954 Plan	1,840,841,000	5.945 a/	309.6

a. Based on CC announcement of 5.5 million spindles in 1952 as meaning by the end of 1952; a CC statement of spindles at the end of 1953 as 115.5 percent of the number at the end of 1949 and at the end of 1954 of 122.3 percent of 1949. The figure for 1949 is given also as 5 million spindles giving a total at the end of 1953 of 5.775 million and at the end of 1954 of 6.115 million spindles.

The Communists statements also indicate that in 1954 95 percent of the spindles are to be on a 3 shift basis and also state that in 1953 State-operated

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mill were all on a 3 shift basis while the utilization rate was 95.4 percent. These data indicate that the planned output for 1954 would be about 4.45 lbs. of yarn per 100 hours of active operation, on the basis of 95 percent of the spindles at 22 hours' utilization and 5 percent at 16 hours' utilization for six-day weeks. On the basis of the planned target of 11.8 increase in yarn over 1953 and the 5.4 percent planned increase in spindles, planned utilization of spindles is expected to increase by about 6.1 percent over 1954. This would yield about 4.19 lbs. of yarn per 100 hours of active operation in 1953. The question of the possibilities and probabilities of such an average output per spindle of the 20-count type of yarn produced in China as compared with comparable rates elsewhere needs to be explored further. (The US average in 1951 was 4.24 lbs. per 100 hours, consisting for the most part of higher count yarn. The highest US average, in 1940, was 4.65 lbs. per 100 hours.) ORR estimates give a range for average annual output from 190 lbs. per spindle as a minimum to 320 lbs. per spindle as a maximum. The Chinese Communist figures for 1952 seem to involve average output well within this range, while the 1954 output is pushing on the maximum that is possible.

The former U.S. agricultural Attaché in China, Mr. Owen L. Dawson, is engaged in a study of reports available in Washington on agricultural conditions and production in Communist China. His review of estimates of agricultural production and cotton yarn and cloth output, in the light of the increase in population, current conditions, and Communist policies on the Mainland, is awaited with interest as being of particular value in relation to the appraising of previous estimates of production in these fields.

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